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Easterling, Deborah

From: Easterling, Deborah
Sent: Thursday, November 08, 2018 9:18 AM
To: 'Katherine Stainken'
Subject: RE: Support Letter for SC PSC filings 2018-321-E and 2018-322-E

Dear Ms. Stainken,

This is to acknowledge receipt of your Comments to the Public Service Commission of South Carolina. Your Comments will be placed in the Public Comments File of the Docket(s) listed below and on the Commission's Website at www.psc.sc.gov.

- Docket No. 2018-321-E - Application of Duke Energy Carolinas, LLC for Approval of Proposed Electric Transportation Pilot and An Accounting Order to Defer Capital and Operating Expenses
- Docket NO. 2018-322-E - Application of Duke Energy Progress, LLC for Approval of Proposed Electric Transportation Pilot and An Accounting Order to Defer Capital and Operating Expenses

You can follow this Docket and other daily filings made at the Commission by subscribing to the Commission's Email Subscriptions at this link: https://dms.psc.sc.gov/Web/Email; or you can also follow Docket No. 2018-322-E and Docket No. 2018-311-E at the links below:

Docket No. 2018-321-E - https://dms.psc.sc.gov/Web/Dockets/Detail/116874

Docket No. 2018-322-E - https://dms.psc.sc.gov/Web/Dockets/Detail/116875

If we may be of further assistance to you, please do not hesitate to contact us.

Sincerely,

Deborah Easterling
Executive Assistant
Public Service Commission of South Carolina
803-896-5133
Sign up for Meeting Agenda Alerts: Text PSCAGENDAS to 39492

From: Katherine Stainken [mailto:kstainken@pluginamerica.org]
Sent: Wednesday, November 07, 2018 3:06 PM
To: PSC_Contact <Contact@psc.sc.gov>
Subject: Support Letter for SC PSC filings 2018-321-E and 2018-322-E

To Whom it May Concern:

On behalf of Plug In America's SC EV drivers, please find attached a letter of support for the dockets 2018-321-E and 2018-322-E, for Duke Energy's transportation electrification pilot programs. The same letter of support can be used for both dockets.

Please let me know if there is a different way to submit this letter, or if this is the proper method. I do not have a fax machine. I looked online for the "MyDMS" section of your website but I did not see any way to upload support letters.

Thank you!

Best,
Katherine Stainken

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Katherine Stainken
Policy Director
Plug In America
kstainken@pluginamerica.org
908-229-7837

Plug In America
6380 Wilshire Blvd
Suite 1000
Los Angeles, CA 90048
(323) 372-1236

The Honorable Jocelyn G. Boyd
Chief Clerk/Administrator
The Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia, SC 29210

Docket title: Application of Duke Energy Progress, LLC for Approval of Proposed Electric Transportation Pilot and An Accounting Order to Defer Capital and Operating Expenses AND Application of Duke Energy Carolinas, LLC for Approval of Proposed Electric Transportation Pilot and An Accounting Order to Defer Capital and Operating Expenses

Docket number: 2018-322-E and 2018-321-E

November 6, 2018

Dear Chair Randall:

On behalf of the plug-in electric vehicle (PEV) drivers we represent in South Carolina and throughout the southeast, Plug In America would like to thank you for this opportunity to provide feedback and support for the Duke Energy proposed electric transportation pilot under docket number 2018-322-E and 2018-321-E.

Plug In America is the nation's leading independent consumer voice for accelerating the use of PEVs in the United States to consumers, policymakers, auto manufacturers and others. Formed as a non-profit in 2008, Plug In America provides practical, objective information collected from our coalition of plug-in vehicle drivers through public outreach and education, policy work and a range of technical advisory services. Our expertise represents the world's deepest pool of experience of driving and living with plug-in vehicles.[1]

The future of transportation is widely seen to be electric, and sales of PEVs are growing quickly in South Carolina, across the United States and also globally. Given the number of benefits available to consumers and to the electric grid, it's no surprise that policymakers and utilities around the country are moving forward with supportive policies, programs and regulations for an electric transportation future. Therefore, Plug In America largely supports the Duke Energy proposal as filed on October 10, 2018 and offers the following comments and suggestions:

[1] More information available at: www.pluginamerica.org

Plug In America
6380 Wilshire Blvd
Suite 1000
Los Angeles, CA 90048
(323) 372-1236

1. **Plug-in electric vehicles are clean cars that provide significant benefits to all South Carolina consumers, including: cleaner air, reduced healthcare costs, and more savings on fuel and car costs.**

South Carolina consumers like these clean cars for the increased savings on fuel and maintenance costs with PEVs. Maintenance costs for PEVs are much less than for gasoline vehicles. Plug-in hybrid electric vehicles (PHEVs) require fewer oil changes, while battery electric vehicles (BEVs) require none. BEVs also have ten times fewer moving parts than gasoline vehicles; there's no engine, transmission, spark plugs, valves, fuel tank, tailpipe, distributor, starter, clutch, muffler, or catalytic converter.

In terms of the fuel costs, on average, fueling a car with electricity is roughly the same as gas at $1 per gallon, thanks to a PEV's performance efficiency and the lower cost of electricity.[2] In fact, it costs about half as much to drive a PEV as a gasoline vehicle. The average driver can save more than $3,500 over the vehicle lifetime if gas prices fall to a low of $2.50 per gallon. If gas prices go back up to a more typical recent price of $3.50 per gallon, the average electric vehicle will save its owner nearly $9,000 over the vehicle's lifetime.[3] Electricity prices are also far more stable than gasoline prices, allowing drivers to avoid the risk of future price spikes.

PEVs provide cleaner air for all South Carolina citizens, as they emit less tailpipe pollution compared to gas vehicles. Battery electric vehicles (BEVS) have no tailpipe and therefore no tailpipe emissions, while plug-in hybrid electric vehicles (PHEVs) produce far fewer tailpipe emissions than a standard gasoline-powered vehicle. This significantly reduced tailpipe pollution improves the air quality and reduces healthcare costs. Despite continued improvement, too many people in the U.S. live where the air is unhealthy for them to breathe.[4] With more clean vehicles and PEVs on the roads, public and private health care costs can be greatly reduced.

In addition to tailpipe emissions, PEVs also significantly reduce carbon emissions. PEVs powered by electricity from the local grid currently produce 54 percent less (lifetime) carbon pollution than gasoline cars, which could grow to 71 percent by 2050 as our power supply gets cleaner.[5] Using renewable energy to charge a PEV reduces the carbon emissions from the PEVs close to zero. PEVs also have the lowest total lifecycle carbon footprints for all light-duty vehicles on the road.[6] The Alternative Fuels Data Center at the U.S. Department of Energy shows that for the national average, PEVs have a "well-to-wheel emissions

[2] http://energy.gov/eere/eveverywhere/ev-everywhere-saving-fuel-and-vehicle-costs
[3] The analysis was performed by Environment California in the report, "Drive Clean and Save: Electric Vehicles are a Good Deal for California Consumers and the Environment." However, similar incentives are already in place in dozens of other states across the country, and gas prices are similar in dozens of other states as well, suggesting a similar result in savings for other states. The report is available here: http://www.environmentcalifornia.org/sites/environment/files/reports/Drive%20Clean%20and%20Save%20June%202016.pdf
[4] http://www.lung.org/our-initiatives/healthy-air/sota/key-findings/
[5] https://www.nrdc.org/experts/luke-tonachel/study-electric-vehicles-can-dramatically-reduce-carbon-pollution
[6] http://carboncounter.com/

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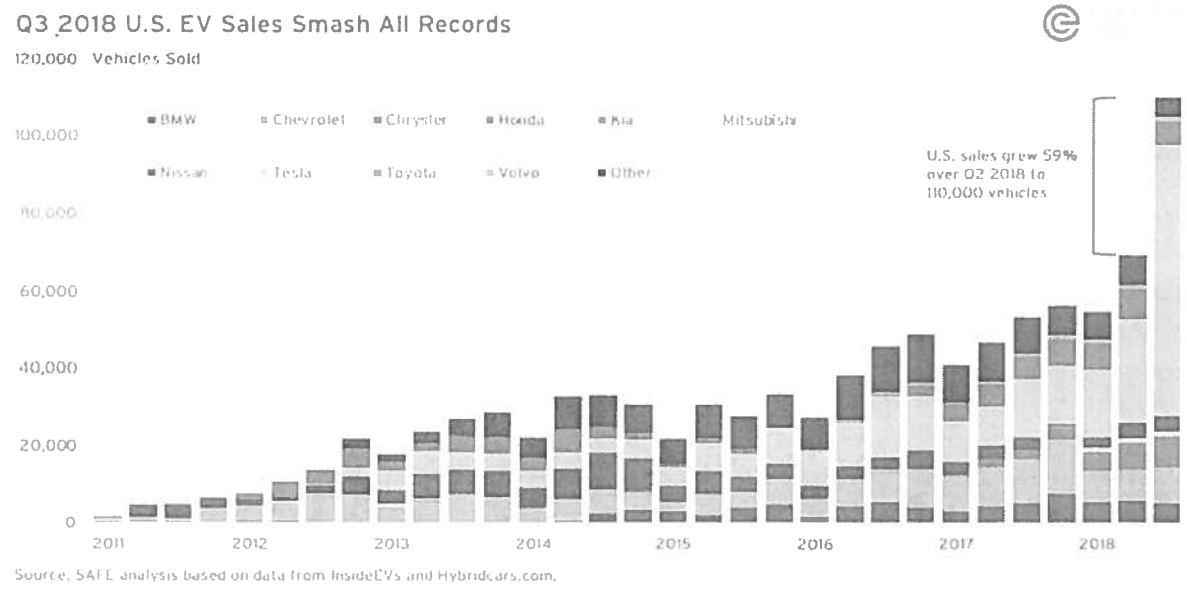
6380 Wilshire Blvd
Suite 1000
Los Angeles, CA 90048
(323) 372-1236

advantage over similar conventional vehicles running on gasoline or diesel."[7] Gasoline vehicles emit 11,435 pounds of CO2 equivalent annually, while all electric vehicles emit 4,455 pounds of CO2 equivalent annually.

2. **Sales of PEVs are growing faster than ever before. Therefore, it is timely for Duke Energy to propose their program now, especially when other utilities around the country are moving forward with supportive PEV programs and filings on the range of hundreds of millions of dollars. Plug In America supports the expedited review of the program.**

Sales of clean cars are growing faster than ever before. From 2010 until October 2018, consumers have purchased nearly one million clean PEVs,[8] with sales expected to accelerate as prices continue to decline. The U.S. saw sales of PEVs increase 31% in 2017 over 2016, and sales of PEVs are forecast to increase 48% for 2018 over 2017.[9] For the three months of May through July 2018, seven of the top ten selling PEVs had sales volume higher than their year-to-date (YTD) monthly volume.[10] Americans want PEVs, and they are buying them today. The two charts below show the growth in PEV sales since 2010 on a quarterly basis, and then the sales for 2018 on a monthly basis.



[7] https://www.afdc.energy.gov/vehicles/electric_emissions.php
[8] Vehicle count based on HybridCars.com count of U.S. sales of nearly 1 million plug-in vehicles (BEVs, PHEVs) from December 2010 through the end of October 2018.
[9] https://cleantechnica.com/2018/07/01/please-stop-saying-evs-are-only-1-of-auto-sales-in-the-us/
[10] http://evadoption.com/us-ev-sales-8-trends-through-july-2018/
[11] https://www.electrificationcoalition.org/

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6380 Wilshire Blvd
Suite 1000
Los Angeles, CA 90048
(323) 372-1236

2018 – Plug-In Vehicle (PHEV + BEV) Sales by Month – U.S. Market

Month	Plug-In Hybrid (PHEV)	Battery (BEV)	Total Plug-In Electric Vehicle (PEV)
January	5,800	6,085	11,885
February	8,152	8,347	16,499
March	10,882	14,880	25,762
April	9,647	9,589	19,056
May	11,236	12,741	23,977
June	10,280	11,932	22,212
July	9,279	20,235	29,514
August	9,730	26,650	36,380
September	10,543	34,046	44,589
October			
November			
December			
	PHEV Sales 2018 YTD: 85,369	**BEV Sales 2018 YTD:** 144,505	**Total PEV Sales 2018 YTD:** 229,874

[12]

PEVs are no longer vehicles just for wealthy Americans. For example, the Chevy Bolt sells for $37,000 MSRP.[13] The Tesla Model 3 will start selling at $35,000 for the base model in 2019.[14] The 2019 Chrysler Pacifica Hybrid Mini-van sells for $39,995 MSRP.[15] The Plug In America vehicle tracker shows a host of new PEVs selling in the $20-30k range: the Mitsubishi i-MiEV sells for $22,995, the Toyota Prius Prime sells for $27,100, the Ford Focus Electric sells for $29,120, and the Nissan LEAF sells for $29,990. Ongoing battery research led to a groundbreaking report by Bloomberg New Energy Finance in February 2016 that stated PEVs will be at cost parity with their internal combustion engine counterpart vehicles by 2022, and certainly no later than 2026.[16] As these cars decline in price to reach parity with their gas counterparts, supportive federal and state purchase incentives help consumers make the switch to drive electric.

Therefore, due to the anticipated near-term growth in sales of PEVs in South Carolina and across the southeast, it is timely for Duke Energy to propose their pilot program now and to have an expedited review of the program. Utilities around the country are filing programs in the range of hundreds of millions of dollars, with a heavy focus on PEV infrastructure and appropriate charging rates. The Duke

[12] https://electricdrive.org/index.php?ht=d/sp/i/20952/pid/20952
[13] https://www.chevrolet.com/electric/bolt-ev-electric-car
[14] https://www.tesla.com/model3
[15] https://www.chrysler.com/pacifica/hybrid.html
[16] https://www.bloomberg.com/features/2016-ev-oil-crisis/

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6380 Wilshire Blvd
Suite 1000
Los Angeles, CA 90048
(323) 372-1236

Energy proposals of around $10M total is reasonable and appropriate. As PEV adoption in South Carolina grows, we encourage Duke Energy to file an even larger proposal that will help to meet consumer demand for PEV infrastructure and appropriate charging rates.

3. **Plug In America supports the rebate program for electric school buses and charging infrastructure and the electric transit bus charging stations. Electric buses not only serve to reduce tailpipe emissions and therefore improve air quality, but also serve to bring consumer awareness to electric technologies.**

Duke Energy has proposed a rebate program to aid in the purchase of approximately 30 electric school buses by providing rebates of up to $125,000 each, on a first-come, first-served basis, to school districts willing to purchase an electric school bus and associated charging infrastructure with Vehicle-to-Grid ("V2G") power flow capabilities between the two filings. The program incentive level is designed to offset a portion of the cost of the bus and related charging infrastructure.

Similarly, Duke Energy has proposed to provide rebates of up to $55,000 each on a first-come, first-served basis to eligible transit agency customers electing to procure an electric transit bus for up to 30 electric transit bus charging stations between the two filings. In exchange for the rebate, the transit agency will allow Duke Energy to record all vehicle charging data, and perform testing of utility-managed charging capabilities.

Electric buses not only serve to reduce tailpipe emissions and therefore improve air quality, but also serve to bring consumer awareness to electric technologies. In addition, many low-income and disadvantaged communities utilize bus services and live in areas that have the poorest air quality, making the switch to electric buses for these communities an even more compelling argument. Like light-duty PEVs, electric buses save the fleet operator thousands of dollars on fuel and maintenance costs. Furthermore, a study from the Union of Concerned Scientists found that electric buses are cleaner than diesel buses in all areas of the country, in terms of lifecycle emissions. They study found that the diesel bus has nearly 1.5 - 8 times the carbon emissions as an electric bus, depending on the region.[17] These figures include the carbon emissions from charging the bus on the electric grid.

We encourage Duke Energy to partner with local transit authorities to determine the best placement for the bus charging infrastructure.

4. **Plug In America supports the residential PEV charging program. We encourage Duke Energy to make their participation requirements, especially the curtailment periods, very clear to customers in order to not affect customer mobility.**

[17] See the report at: https://blog.ucsusa.org/jimmy-odea/electric-vs-diesel-vs-natural-gas-which-bus-is-best-for-the-climate?_ga=2.226102682.1843563386.1532023761-1843342382.1531829971

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6380 Wilshire Blvd
Suite 1000
Los Angeles, CA 90048
(323) 372-1236

As part of the Duke Energy Carolinas proposal, Duke Energy proposes a residential PEV charging program that is designed to evaluate whether PEV adoption can be encouraged by providing a rebate to support the installation of smart, networked Level II (208/240V) charging station. Duke Energy proposes to provide a rebate and ongoing quarterly participation payments for up to 400 residential customers installing qualifying Level II charging stations in exchange for utility management of home charging during defined hours. This program will also be used to establish procedures to determine the value and viability of utility-managed charging in practice.

Plug In America supports the proposed program to offer a rebate for installing Level 2 charging stations in a residence. The proposed amount of $500 is appropriate at this time as well. We encourage Duke Energy to offer a slightly increased rebate for those customers who are considered low-income. We also highly encourage Duke Energy to make the contract terms and early termination charges very clear to the customer, as well as the curtailment periods of up to 60 minutes, so that customer mobility is not affected.

5. **Plug In America supports the installation, ownership and operation of 30 DCFC stations by Duke Energy. We encourage these stations to be located along PEV corridor routes, at the edge of metropolitan areas, or close to multi-unit dwellings that lack dedicated parking spaces for PEV charging stations.**

Duke Energy proposes to install, own and operate a total of 30 DC Fast Charging (DCFC) between the two filings in order to provide a foundational level of infrastructure and facilitate PEV market growth. Following L1 and L2 charging at homes and workplaces, DCFC stations are needed for PEV drivers. The installation of DCFC stations are higher upfront investments that are appropriate for a utility to own and manage. Therefore, Plug In America supports this investment in DCFC by utilities.

These DCFC stations should be installed particularly where concentrations of PEV drivers live in multiple family dwellings without access to garage based home charging, or dedicated parking spaces for charging. In addition, siting DCFC stations at locations along highway corridors approximately 50 miles from urban PEV concentrations will be advantageous for range extension opportunities.[18]

6. **We recommend that Duke Energy add a cap to the $/kWh charge for PEV drivers utilizing the DCFC stations.**

Duke Energy states in their proposal, "Currently, the market for public DC fast charging in South Carolina is limited, with only three operators charging drivers a fee for the service. Because the Company wants to facilitate the continued growth of DCFC accessibility, the Company realizes that it must charge a fee to customers to use the stations at a price that is comparative to the current market rate for electric

[18] The Alternative Fuels Corridors can be found here: http://www.fhwa.dot.gov/environment/alternative_fuel_corridors/

Plug In America
6380 Wilshire Blvd
Suite 1000
Los Angeles, CA 90048
(323) 372-1236

vehicle charging in South Carolina. To charge less would undercut the market; to charge more would reduce the incentive for drivers to use the Company's stations. Therefore, this method provides a clear and stable price signal to consumers while also encouraging further market growth from other third-party operators. To accomplish this, the Company plans to sample the market price ($/kWh) for EV charging, on a quarterly basis, and then charge customers the approximate average price per kWh. For example, as sampled on July 1, 2018, the average price for the 23 DCFC stations that charge a fee to drivers for use of the station is approximately $0.236/kWh, which would be the rate the Company would charge drivers at the Company's DCFC until the next sampling on October 1, 2018."

Plug In America is unaware of any other utility proposing a similar DCFC rate. As Duke Energy notes, there are only three other operators of DCFC stations in South Carolina. Therefore, we recommend that Duke Energy add a cap to the $/kWh charge to PEV drivers who will utilize the DCFC stations. Should the utilization of DCFC stations decline with these three other operators (i.e. the Duke Energy stations are better maintained, have better signage, are located in more convenient places), the operators will likely need to increase the charge costs to recoup the capital expense of the stations. This would have the consequence of driving the Duke Energy DCFC rates upward in an excessive manner. A cap on the $/kWh charge to PEV drivers at the DCFC stations could help to eliminate this concern.

We are happy to answer any questions you may have. Please send any questions to Katherine Stainken, Policy Director, at kstainken@pluginamerica.org.

Best regards,

Joel Levin
Executive Director
Plug In America